

In Bull. No. 3, Vol. II, of the Chicago Academy of Sciences, the writer published an account of the anatomy of *Limmæa emarginata* var. *Mighelsi* in which several errors appeared. The first was the position of the kidney and ureter as figured on plate VI. K. U. An examination of a larger and more perfect specimen shows the shape and position to be different, the ureter really proceeding from the anterior end and extending in a straight line to the edge of the mantle. It is needless to add that the renal organs, as figured on this plate, do not exist in the fresh water pulmonates.

On plate III of the same paper is given a figure of the genitalia in which a flagellum is described (E. F.). This is the vas deferens and the duct thought to be the vas deferens is the penis retractor muscle.

NEW LAND SHELLS FROM THE LOO CHOO ISLANDS AND JAPAN.

BY HENRY A. PILSBRY.

Mr. Hirase, continuing his researches, has recently taken steps to procure shells of the Loo Choo Islands; some of the first-fruits being noticed below. He writes: "I have sent two able collectors, in the hope that I may procure for study the land shells of Kiushiu and Loo Choo. They were sent at first, on February 23d last, to Yaeyama, in the Loo Choos, for a stay of two months; but because of malaria they were obliged to leave, and thus spent only twenty days there. They are now working in the neighboring island of Nawa, in the Loo Choo group."

Among the species sent from Yaeyama are *Clausilia hyperoptyx* Pils., *C. Stearnsii* Pils., *Bifidaria armigerella* Reinh., and *Georissa japonica* Pils. The last two species were originally described from the main island of Japan, Hondo; and their occurrence in the middle Loo Choo group extends their distribution notably. The specimens are, however, quite typical. The finding of a typical species of the Chinese group *Buliminopsis*, *B. meiacoshimensis* A. & R., which Mr. Hirase sends from Yaeyama Island, and a species of *Tornatellina*, is extremely interesting. The latter genus has not been reported nearer than Luzon, so far as I know: Of *Buliminopsis* two species have been described from the Loo Choo Is., *B. meiacoshimensis* Adams and Reeve, described as a *Bulimus*, and

hitherto referred to *Stenogyra*, and *B. turritus* Gude, described as *Ganesella*, though Mr. Gude suggests that it may be a *Buliminopsis*. Although I formerly thought *turrita* a *Ganesella*, the sculpture of fresh specimens is so similar to *Buliminopsis* that I have now little doubt that Gude's surmise was correct. It resembles the Chinese *B. buliminoides* Hde. in shape, but the latter, from a specimen received from Pere Heude, is narrower and less acutely keeled. Dr. Fritz Wiegmann has recently shown that *Buliminopsis* has essentially the organization of the genus *Eulota*, and therein is perhaps nearest to *Cathaica*. His investigations show that there are no important anatomical differences between the numerous subgenera which I have subordinated to *Eulota*. The characters intergrade by easy stages. Even *Buliminopsis* is anatomically an *Eulota*.

At Shunashiri, Loo Choo group, a form of *Eulota* (*Plectotropis*) *scepasma* Pfr. occurred, having $6\frac{1}{2}$ whorls and a more depressed contour, being thus more acutely carinate. It measures, alt. $10\frac{1}{2}$, diam. 21 mm., and is densely covered, like the typical form, with short, triangular, cuticular scales. *Plectotropis pachysoma* Ehrmann, is evidently a synonym of typical *E. scepasma*.

Trishoplita collinsoni var. *casta* nov. Shell rather openly umbilicate, depressed, with conic spire; white with a brown line at the periphery, showing above the suture on the spire. Surface shining, minutely striate, rather faintly decussate beneath, microscopically papillose. Whorls 6, slowly widening, the last very obsoletely angular at the periphery, becoming rounded towards the aperture, convex beneath. Aperture oblique, shortly oval, slightly lunate, the penultimate whorl excising a segment of about one-fourth the circumference of the peristome; lip white, narrowly expanded above, the outer and basal margins reflexed.

Alt. 8.6, diam. 12.5; length of aperture 5.5, width 6.3 mm.

Alt. 10, diam. 12; length of aperture 6, width 7 mm.

Obi, Prov. Hyuga, in eastern Kiusiu (Mr. Y. Hirase).

This species is somewhat more conical than *T. tosana* Gude,¹ with an umbilicus of about the same width or a little smaller. It has about the form but not the coloration of *T. cretacea* var. *bipartita*, and is apparently allied to *T. collinsoni* (A. Ad.) and *T. lischkeana* (Kob.), both of which have similar coloration. *T. collinsoni* was described from "Tago," which I take to be Tako, a place at the west-

¹ The name *tosana* Gude has three days priority over *suprazonata* Pilsbry.

ern end of Shikoku Island. It has not been figured, but is said to be "globoso-conica," "late perforata," with a wide peripheral band and lunate aperture. None of these terms would I apply to the shells before me, though it is by no means impossible that my species is a variety of that of Adams. *T. lischkeana* is from Hagi, on the north coast of western Hondo. It is a smaller shell than *T. casta*, with narrower umbilicus. When these forms of *Trishoplita* are better known, I believe they will be seen to fall under a few specific heads, like the *peplomphala* group of *Euhadra*. It is likely that *collinsoni*, *casta*, *lischkeana*, *bipartita* and *cretacea* are varying races of one species, and will be found to intergrade on the confines of their several areas. *T. collinsoni* is the senior name for the group, which has about the distribution of *Eulota callizoua* var. *maritima* G. & P.—Shikoku, eastern Kiushiu and western Hondo.

Trishoplita hiugensis n. sp. Shell depressed, rather narrowly umbilicate, brownish yellow, the suture bordered below with a narrow white band; very glossy, finely striatulate. Spire low-conic, the apex obtuse. Whorls $4\frac{3}{4}$, convex, the last slightly deflexed in front, indistinctly angular at the periphery in front, becoming rounded on the latter portion. Convex beneath. Aperture shaped like that of *T. tosana*, the lip expanded, reflexed below. Alt. 6.4, diam. 9.4–9.8 mm.

Obi, Prov. Hyuga, Kiushiu (Mr. Y. Hirase).

A smaller, less conoidal form than *T. tosana* or *T. dacosta*, with fewer whorls. It is No. 601 of Mr. Hirase's collection.

Kaliella Austenianna n. sp.

Shell distinctly perforate, turbinato-conic, thin, light reddish brown. Surface very minutely sculptured with densely crowded rib-striae, which give it a silken luster, and give place on the more glossy base to slight growth-wrinkles and fine spiral striae. Whorls nearly 6, very convex, the first one sculptured with much more spaced rib-striae; last whorl obtusely subangular at the periphery, quite convex beneath. Aperture oblique, rather broadly crescent shaped; peristome simple and thin, the columellar margin dilated above. Alt. 2.7, diam. 5.2 mm.

Yaeyama Island (Mr. Y. Hirase, no. 627).

In this species the minute striae continue below the periphery, and form a silken band around the base, the central two-thirds of which is more glabrous. This has been noticed in *Iuconulus*, *Guppya*,

etc., also. The spaced costulation of the initial whorl is a characteristic though not invariable feature of *Kaliella*.

It is named in honor of Lieut.-Col. H. H. Godwin-Austen, whose work on the Indian *Zonitidæ* is destined to become a malacological classic.

Kaliella yaeyamensis n. sp.

Shell narrowly perforate, rather low conic, thin, reddish brown. Surface slightly shining above, glossy beneath, sculptured with rib-striae comparatively coarse for a *Kaliella* (but still very fine), continuing on the first whorl, obsolete on the base, and excessively minute spiral striae. Whorls $4\frac{3}{4}$, moderately convex, the last angular (but not acutely so) at the periphery, not very convex beneath. Aperture oblique, broadly crescentic, the lip thin and simple, dilated at the columellar insertion. Alt. 2, diam. 3 mm.

Yaeyama Island (Mr. Y. Hirase, no. 625).

With *K. nahaensis* Gude, this makes three species of *Kaliella* now known from the Loo Choo Islands. *K. nahaensis* has fine, almost subobsolete striae, and a peripheral keel, thus differing decidedly from the two species described above.

Kaliella ruida n. sp.

Shell perforate, in shape resembling *Microcystina ceratodes* (Gude). Acutely keeled, thin, brown, somewhat translucent, sculptured above and in a band around the base, below the periphery, with sharp, close and regular rib-striae; the rest of the base glossy, with very minute spirals only. Whorls $3\frac{1}{2}$, moderately convex above, the last quite convex beneath. Aperture wide-crescentic, peristome thin, fragile. Alt. 2, diam. 3.5 mm.

Gojo, Prov. Yamato, Japan (Mr. Y. Hirase, no. 607).

I am disposed to believe this shell, of which but two specimens were sent, is not full grown, and will be found to attain a larger size; but the sculpture is so conspicuous and so unlike any known species of similar shape, that its recognition will be easy.

Georissa luchuana n. sp.

Shell small, globose-turbinate, dull red, composed of nearly $3\frac{1}{2}$ very convex whorls, the first glossy and smooth, with rather large apex, the rest rapidly increasing, closely and regularly striated or lirulate spirally. Last whorl large and obese. Aperture oblique,

half-circular; outer lip simple; columella heavily calloused, wide and somewhat flattened. Length 2.1, diam. 1.85 m.

Yaeyama Island, Loo Choo group (Mr. Y. Hirase, no. 623).

A species relatively much shorter and wider than the related *G. japonica* Pils., which occurs also on Yaeyama.

Dr. v. Möllendorff has recently redescribed *G. japonica* as a new species, not knowing of my earlier description. He used the same specific name (Nachrbl. 1901, p. 45).

Diplommatina insularum n. sp.

Shell minute, imperforate, amber-colored or corneous, cylindrical-oblong, the penult whorl widest, those above forming a gradually tapering spire, sculptured with delicate, rather close rib-striae. Whorls $6\frac{3}{4}$, convex, the last narrower than the preceding, ascending to the aperture, somewhat constricted in front. Aperture circular, the peristome continuous, outer lip doubled; columella acutely toothed; palatal fold short. Length 2.8, diam. 1.4, alt. of aperture with peristome 1 mm.

Yaeyama, Loo Choo Islands (Mr. Y. Hirase, no. 620).

This is a decidedly more tapering species than *D. cassa*. *D. nipponensis* is less slender and smoother, and *D. kobelti* is larger and more pyramidal. All of these are dextral forms. *Paxillus lyratus* Gld. may be closely allied, possibly identical; but the description is not sufficient for critical comparison.

Cyclotus Hirasei n. sp.

Shell broadly and openly umbilicate, subdiscoidal, yellowish-green in color, the first two whorls subtranslucent and deep amber colored; rather glossy, very irregularly and roughly wrinkled or even subpliate, in the direction of growth-lines. Whorls $3\frac{3}{4}$, the first $1\frac{1}{2}$ strongly projecting, teat-like, following whorls tubular, the last whorl slowly descending, barely in contact with, or slightly free from the preceding whorl, at the aperture. Aperture circular, slightly oblique. Peristome circular, unexpanded and acute, continuous. Operculum multispiral, with sunken central nucleus, the edges of the whorls projecting a little. Alt. 4.5, diam. 8.5, diam. of aperture 3.3 mm.

Loo Choo Is. (Mr. Y. Hirase, no 612).

Related to *C. swinhoei* and *C. minutus* H. Ad., of Formosa, but differing in sculpture, the present species being wrinkled but without spiral striation.

Diplommatina cassa n. sp.

Shell dextral, imperforate, oblong, rather thin, reddish amber colored or whitish-corneous, composed of $6\frac{1}{2}$ very convex whorls, the last one narrower, strongly ascending. Surface densely and regularly costulate-striate. Aperture subcircular, the peristome continuous, thin, rather broadly and flatly reflexed, its face concave; there is a sharp, high and narrow crest close behind the outer and basal margins. Subcolumellar tooth strong; palatal fold short, situated to the left of the adjacent margin of the peristome. Length 3.1, diam. of penult. whorl 1.7, length of aperture 1.2 mm.

Kodakari, prov. Hida (no. 604), and Kyoto (no. 452), Y. Hirase.

This species is related to *D. nipponensis* Mlldff., *D. insularum* Pils., and *D. Kobelti* Ehrm. The conical part of the spire is much shorter than in the former of these, judging from specimens from the Hakone Mts., collected by Mr. B. Schmacker.

D. Kobelti is a species slightly longer than *D. cassa*, finely costulate-striate, composed of $7\frac{1}{2}$ whorls, of which only the last two are of equal diameter, those above tapering regularly, forming a very long conic spire. The aperture is about as described for *D. cassa*. Length 3.4, diam. 1.6, aperture 1.16 mm. It is thus slightly longer than either *nipponensis* or *cassa*, with one whorl more, and a longer more pyramidal spire. It is from Kashima, prov. Harima, where it occurs with *D. cassa* (no. 305 b of Mr. Hirase's collection).

These species are all distinctly smaller than *D. collarifera* S. & B. and *D. tenuiplica* Pils., and larger than *D. uzenensis* Pils.

D. minutissima Mlldff. 1901, is a synonym of *D. pusilla* var. *omiensis* Pils., published eight or nine months previously. Both were based on Mr. Hirase's no. 487.

Tornatellina inexpectata n. sp.

Shell umbilicate, pyramidal, thin, brown, glossy, smooth except for slight growth-lines. Spire straightly conic, the apex obtuse. Whorls $5\frac{3}{4}$, slightly convex, the last rounded at the periphery, convex below. Aperture subovate, armed within with a low entering lamella on the middle of the parietal wall. Peristome thin, the margins remote, columellar margin broadly dilated and reflexed. Length 3, diam. 1.7 mm.

Yaeyama Island (Mr. Y. Hirase, no. 626).

Carychium cymatoplax n. sp.

Shell minute, corneous-whitish, slender, cylindric-fusiform, almost

smooth. Whorls 5, moderately convex, the penult. and last of about equal diameter. Aperture small, somewhat oblique; peristome well expanded, much thickened within, the outer lip broad, with a blunt tooth above the middle, columella truncate at base; parietal lamella strong. Axial lamella becoming a very wide spiral plate within, bent into strong waves. Length 1.84, diam. .64 mm.

Yaeyama Island (Mr. Y. Hirase, no. 618).

This species is smaller and more cylindrical than *C. noduliferum*, is smooth, and the internal axial lamella is more strongly waved. *C. noduliferum* was described from Misaki, and has been sent by Mr. Hirase from Nishigo, Prov. Uzen. It is a strongly tapering shell, finely but sharply and regularly striate, and in most adults has a palatal nodule within the outer lip, though this is variable in development. It is larger than *C. cymatoplax*, length 2.2 mm.

NEW PUBLICATIONS.

DIGESTA MALACOLOGICA, No. 1. A Summary of the American Journal of Conchology. By E. R. Sykes.¹ Under the above caption Mr. Sykes proposes to issue a series of digests, prepared after the model of those in the Zoölogical Record. "It has been a constant source of difficulty for many years past to ascertain what work has been done by our predecessors, relating either to a special genus or to some faunal district. With the idea of rendering some assistance to students, the present work has been undertaken." The number before us deals with the *American Journal of Conchology*, and commences with a table of dates of publication, followed by a list of titles arranged by authors. The contents of the articles are then referred to under the heads of Anatomy, Distribution, both geographical and geological, etc. The systematic portion is arranged by families, every species described being referred to by volume and page. It is, therefore, easy to ascertain what the series contains relating to the mollusks of any given region, or of any special family or genus, whereas otherwise this information could be obtained only at the expense of much time and labor, or found only by accident. All who have occasion to use the *Journal* should possess themselves of this aid to its use. The Digest is well gotten up, and seems to contain but few mistakes or misprints.

¹ London, William Wesley & Son, 28 Essex St., Strand, 1901. (Price, \$1.50; to subscribers to the series, \$1.25.)